



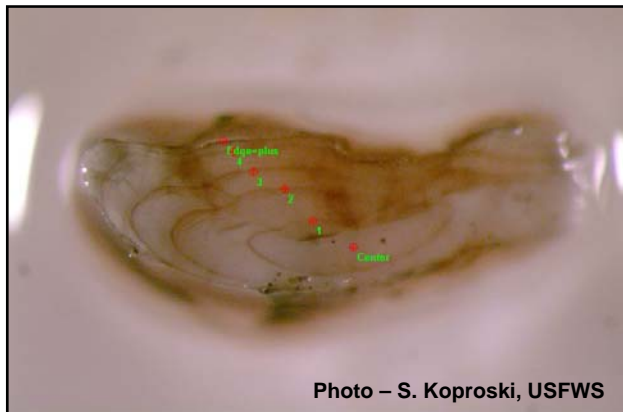
U.S. Fish & Wildlife Service

FY 05 Alpena FRO Accomplishment Summary

Leadership in Science and Technology

Science and technology form the foundation of successful fish and aquatic resource conservation and are used to structure and implement monitoring and evaluation programs that are critical to determine the success of management actions. The Service is committed to following established principles of sound science. The Alpena Fishery Resources Office in Alpena, Michigan provides a leadership role in many areas of conservation. The following accomplishments are a list of examples of leadership that the office provided in science and technology during Fiscal Year 2005.

Round Goby Age Determination



*Submitted by Scott Koproski
Fishery Biologist*

During the month of November 2004, Fishery Biologist Scott Koproski began analyzing round goby otoliths collected from Thunder Bay, Lake Huron. From 2002 to 2004, samples were extracted from gobies captured during field activities for a study funded through GLNPO to examine their predation on lake trout eggs at historic lake trout spawning reefs in Northern Lake Huron.

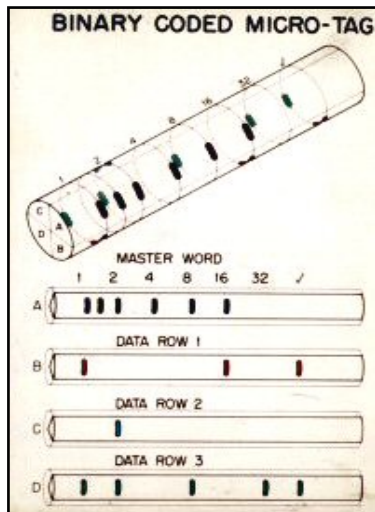
Biologist Koproski tried many different techniques (e.g. cross section, polishing, crack and burn) commonly used to analyze otoliths from various fish species. The technique that worked the best to differentiate annuli formation was the “crack and burn” technique. The otolith was laterally cracked down the center, and the two cracked portions were inserted into an alcohol burner to highlight the different zonation within the structure. Other techniques such as cross-sectioning and polishing proved difficult to age with any degree of certainty.

A total of 154 pairs of otoliths were analyzed during November. Although staff from the Alpena FRO captured their first goby in 1997, preliminary results indicate that round gobies had their first strong year class in Thunder Bay in 1999. Otoliths viewed from 2002 did not have a single sample with more than 3 annuli, samples from 2003 did not have more than 4 annuli, and samples from 2004 did not possess more than 5 annuli. Very little is known about round gobies, and work that the Alpena FRO is currently conducting should provide valuable information

regarding round goby age composition, diet preferences, and effects they are having on native species such as lake trout.

This is the final year of a 3 year study looking at the effects round gobies may be having on lake trout spawning success. This project is an example of the Alpena FRO's commitment to the Service's Fisheries Program Vision for the Future priorities of "Leadership in Science and Technology" and "Aquatic Species Conservation and Management."

Service Reads Lake Trout CWTs for CORA and MDNR



*Submitted by Adam Kowalski
Fish and Wildlife Biologist*

During the month of December 2004, Fishery Biologist Adam Kowalski extracted and read coded-wire-tags (CWTs) from lake trout. CWTs are microscopic metal tags placed in the snouts of juvenile lake trout at the hatchery. The Chippewa Ottawa Resource Authority (CORA) collected lake trout heads during its spring fishery independent lake whitefish survey and fall lake trout assessments. Kowalski extracted and read CWTs from these lake trout, as well as lake trout collected from the sport-fishery by Michigan DNR head hunters and creel clerks in Lake Huron.

CWTs are extracted by cutting lake trout snouts into smaller and smaller pieces until the tag can be seen and removed. The tag number, when compared to stocking records, yields information such as stocking location, stocking date, fish age, fish strain, and hatchery of origin.

In total, Kowalski removed and read 300 tags from approximately 350 heads. Not all adipose clipped lake trout contain CWTs, because some lake trout shed their tag or multiple clips are undetectable because of fin regeneration or incomplete fin clips. This concludes CWT extraction for the 2004 field season. All CWTs extracted and read at the Alpena FRO will be entered in the Lake Huron Technical Committee common CWT database, which is shared among all contributing resource agencies.

Data collected from lake trout CWTs are used to determine harvest limits, stocking locations, movement patterns, and post stocking survival rates of various hatchery practices. These outcomes are consistent with the Service's goal of building and maintaining self-sustaining populations of native fish species while providing recreational fishing opportunities and meeting the needs of tribal communities under the "Aquatic Species Conservation and Management" priority of the Fisheries Program Vision for the Future. This project also addresses the "Leadership in Science and Technology" and "Partnerships and Accountability" components of the Service's Fishery Program Vision for the Future.

Lake Whitefish Ageing Workshop



*Submitted by Scott Koproski
Fishery Biologist*

On March 10 and 11, 2005 Fishery Biologists Scott Koproski and Adam Kowalski traveled to an ageing workshop in Port Huron, MI to present techniques used by the Alpena FRO to age lake whitefish. The workshop was attended by all agencies involved with the Lake Huron Lake Whitefish Distribution Study funded by the US Fish and Wildlife Service Restoration Act. The study involves tagging and tracking between 1,500-3,000 lake whitefish

annually for 3 years at 8 spawning locations within Lake Huron to determine stock boundaries.

The purpose of the workshop was to develop uniform techniques for ageing scales, otoliths, and fin rays collected from lake whitefish for this project. Each of the six contributing agencies (USFWS, MDNR, CORA, OMNR, Chippewas of Nawash, Bruce Power) sent representatives to this workshop and presented the techniques they use to analyze lake whitefish structures. Biologist Kowalski presented techniques he uses to age lake whitefish scales, and Biologist Koproski presented techniques he uses to age lake whitefish otoliths and fin rays. Each agency shared slightly different preparation techniques for a particular structure, and there was lots of discussion regarding the interpretation of the edge of a structure as an annulus. Agers also discussed techniques to identify the first annulus within a structure. The group plans to have a future workshop to develop standards for ageing Lake Huron lake whitefish. We plan to produce an ageing guide for Lake Huron lake whitefish which will identify the best techniques for structure preparation and interpretation to ensure that agencies assign lake whitefish ages consistently.

This workshop will facilitate consistent ageing among partner agencies involved in the Lake Huron Lake Whitefish Distribution Study. This workshop is an example of the Alpena FRO's commitment to the following Fishery Vision Priorities: "Aquatic Species Conservation and Management", "Cooperation with Native Americans", and "Leadership in Science and Technology".

Great Lakes Lake Sturgeon Tagging Database Web Portal Developed

*Submitted by Anjanette Bowen
Fishery Biologist*

During August 2005, Anjanette Bowen developed a draft Internet portal website that contains Great Lakes lake sturgeon tagging data. The portal allows researchers to enter PIT tag numbers or external tag information recovered from lake sturgeon they have captured. The website

processes the tag information within the tagging database and provides a list of contacts that have tagged or handled that particular sturgeon. The researcher can then use the contact information to report the catch or gather more information on the fish.

The Great Lakes Fishery Resources Offices (FROs) in Ashland and Green Bay, Wisconsin; Amherst, New York; and Alpena, Michigan have contributed their lake sturgeon tagging data and contact information for this initial draft version of the web portal. The portal will eventually house lake sturgeon tagging information from many agencies and areas around the Great Lakes as a definitive source of lake sturgeon tag information. The goal is to network researchers who are capturing lake sturgeon around the Great Lakes.

The tagging database and web portal were developed through a grant written by Alpena FRO Fishery Biologist Adam Kowalski and funded by the Great Lakes Fishery Trust. Information on the site has been developed in conjunction and cooperation with the Great Lakes FRO lake sturgeon coordinators. The final version of the portal will be available in late 2005.

The Great Lakes Lake Sturgeon Tagging Database web portal will provide for inter- and intra-agency coordination of lake sturgeon tagging efforts around the Great Lakes. This project corresponds with the "Partnerships and Accountability", "Leadership in Science and Technology", and "Aquatic Species Conservation and Management" priorities of the Fishery Program's Vision for the Future.

The **Alpena Fishery Resources Office (FRO)** is located in Alpena, Michigan and works to meet U.S. Fish and Wildlife Service Fishery and Ecosystem goals within Lake Huron, Western Lake Erie, and connecting waters of the St. Marys River, St. Clair River, and Detroit River. Activities include Aquatic Species Conservation and Management, Aquatic Habitat Conservation and Management, Cooperation with Native Americans, Leadership in Science and Technology, Partnerships and Accountability, Public Use, and Workforce Management – all of which are conducted in alignment with the Service Fisheries Program Vision for the Future. The station is one of many field offices located within Region 3, the Great Lakes Big Rivers Region.



**Alpena FRO Accomplishment Report
FY 2005**

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